

Commercial silicon-carbide...

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D274/D303

measured by the four-probe method. A figure shows the resistivity (in statistical %) of the various types of specimens. In studying the rectifying properties of diodes, a low-ohmic contact between metal-electrode and crystal is necessary. Several methods of producing such contacts were investigated. It was found that contacts obtained by cathode pulverization of platinum were most convenient, both with regard to low-ohmic character and temperature stability. The resistance of the contacts with the black crystals was $10^2 - 10^3$ ohm, and that of the green crystals - $10^3 - 10^4$ ohm. A model of a point-contact diode was constructed and studied. Current voltage characteristics of point-contact tungsten-silicon carbide are then examined. Figures show the characteristics at various temperatures (from 20-520°C). The rectifying factor K is determined. A table shows, for comparison, the rectifying properties of models made of the different types of silicon-carbide. The electrical properties of commercial silicon-carbide were studied with a view to using these materials for high temperature point-contact rectifiers. A study of the temperature dependence of current-voltage character.

Card 2/3

Commercial silicon-carbide...

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istics of models showed that the green crystals of the Zaporozhe plant have, at room temperature, a rectifying factor $K = 10^4 - 10^5$ which decreases rapidly with increasing temperature. The black crystals of the Tashkent plant have $K = 10^2 - 10^3$ (at room temperature) which increases with temperature, this increase being the greater, the higher the resistivity of the crystal. The black crystals of the Tashkent plant, with a resistivity exceeding 5 ohm/cm, are the most suitable for point-contact diodes. Diodes, similar to the model ones, could be used for rectifying radio frequency signals of 1-5 volts at temperatures up to 500°C. There are 6 figures, 2 tables and 4 references: 2 Soviet-bloc and 2 non-Soviet-bloc. The reference to the English-language publication reads as follows: Electronics, 74, no. 12, 1960. 4

ASSOCIATION: Instytut metalokeramiky i spetsial'nykh splaviv AN USSR, Kyiv (Institute for Metal Ceramics and Special Alloys, AS UkrSSR, Kiev)

SUBMITTED: November 26, 1960

Card 3/3

SHUB, R.I.; BABAK, L.N.

~~Auto-hemo-penicillin therapy in otolaryngology.~~
Auto-hemo-penicillin therapy in otolaryngology. Vest. otorinolar.,
Moskva 14 no.1:80 Jan-Feb 52. (CIWL 21:4)

1. Of the First Polyclinical Division of Sverdlovsk Municipal Hospital
No. 12.

Def. at
Tbilisi State U.

- Давидзе Анна Ивановна. ич. Джугазанский центр Антима. 1944.
История белая и черная. 84 с.
Заг. 1945, 18.7.
1004. Саркисов Савосвуд Мар-
гаросович. Гестетическое изучение
конечной мизы с целью переоборудова-
ния биологического метода борьбы с
мш. Ереван. 1943. 97, 5 с. [5] ил. и
фот. Заг. 1944, 22.4.
1005. Савенко Игорь Конс-
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стном лечении собак и при ес-
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Заг. 1940, 26.2.
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ьянович. Данные по биологии стр-
абной метасформизма. 1950. 2, V.
22 с. 10 ил., рис.
Заг. 1951, 20.5.
1008. Постов Александр Иль-
ич. Заг. 1940, 25.6.

Dissertation for degree of

Candidate Biological Sciences

BARAK, M.P., Assistant

Sensitivity of the skin to ultraviolet rays. Nauch. trudy SamMI
21:198-204 '62. (MIRA 17:5)

1. Iz kafedry fiziki Samarkandskogo meditsinskogo instituta
imena Pavlova.

BABAK, N.; CHERNYAK, P., glavnyy inzhener

Burning glazed clay pipes in rotary kilns. Stroi.mat., izdel. i
konstr. 1 no.4:33-34 Ap'55. (MLRA 8:10)

1. Direktor Khar'kovskogo zavodoupravleniya stroymaterialov (for
Babak). 2. Glavkeramika Ministerstva promyshlennosti stroitel'
nykh materialov USSR (for Chernyak)
(Pipe, Clay)

BABAK. N.M.

Azotobacter chroococcum and Azotobacter galophilum in saline soils
of the floodplain of the Prut River. Mikrobiologiya 34 no.4:695-
701 J1-Ag '65. (MIRA 18:10)

1. Moldavskiy nauchno-issledovatel'skiy institut oreshavennogo
zemledeliya i ovoshchevodstva, g. Tiraspol'.

BABAK, N. M.

Significance of carbon source in the medium in determining
Aerobacter in saline soils of Moldavia. Mikrobiologiya 34
no. 5:868-870 S-O '65. (MIRA 18:10)

1. Moldavskiy nauchno-issledovatel'skiy institut oroshayemogo
zemledeliya i ovoshchevodstva, Tiraspol'.

BARAK, N.N.

Susceptibility of Azotobacter to the antagonistic action of Actinomyces
and some antibiotics [with summary in English]. Mikrobiologiya 27
no.7:436-440 J1-Ag '58 (MIRA 11:9)

1. Institut mikrobiologii AN SSSR.

(AZOTOBACTER,

susceptibility of species to antag. action of Actinomyces
species & antibiotics (Rus))

(ACTINOMYCES,

antag. eff. of various species on Azotobacter species (Rus))

BABAK, N.P., inzh.

Tatar oilmen preventing accidents. Bezop. truda v prom. 2 no.2:31-
32 P '58. (MIRA 11:2)

1. Nachal'nik Bugul'minskoy rayonnoy gornotekhnicheskoy inspektzii
Gosgortekhnadzora SSSR.
(Tatar A.S.S.R.--Oil fields--Safety measures)

BABAK, N.P.; VADETSKIY, Yu.V.

~~Experience of advanced boring specialists.~~ Bezop. truda v prom. 2
no. 6:6 Ja '58. (MIRA 11:7)
(Oil fields--Safety measures)

BABAK, O. N.

Cand Biolog Sci

Dissertation: "Upper Linciput Region of the Cerebral Cortex of Chimpanzee
and Orang-Outang." 7/2/50

Acad Med Sci USSR

SO Vecheryaya Moskva
Sum 71

USSR/Human and Animal Morphology - Normal and Pathological.
Muscles.

S

Abs Jour : Ref Zhur Biol., No 11, 1958, 50313

Author : Babak, O.M.

Inst : Academy of Pedagogical Sciences of RSFSR

Title : Development of Intramuscular Connective Tissue in the
Muscles of the Hand

Orig Pub : Dokl. akad. ped. nauk RSFSR, No 1, 159-163

Abstract : The development of the intermuscular connective tissue
starts from differentiation of the cells of fibroblastic
order; the fibers appear somewhat later. In the new-
born ones all cell forms already exist; an intensive
development of collagenous fibers takes place in the
subsequent period. -- A.M. Zubin

Card 1/1

L 20948-56 EMT(m)/EMP(t) IJP(c) JD
ACC NR: AP6006766 (A) SOURCE CODE: UR/0185/66/011/001/0102/0104

AUTHORS: Shmavevs'kyi, V. Ye.; Babak, O. V.

ORG: L'viv State University im. I. Franko (L'vivs'kyi derzhuniver-sytet)

TITLE: The effect of low-temperature annealing on certain physical properties of the semiconducting solid solution ZnCdSb_2

SOURCE: Ukrayins'kyi fizychnyy zhurnal, v. 11, no. 1, 1966, 102-104

TOPIC TAGS: zinc compound, solid solution, thermal emf, electric conductivity, Hall constant, hole mobility, carrier scattering, annealing, crystal lattice structure

ABSTRACT: Samples prepared by a previously described method (Ukr. Fiz. Zh. v. 7, 294, 1962) were annealed at 670K for 2000 hours. The thermal emf, electric conductivity, and the Hall constant were measured in a temperature range from 480K to room temperature during heating and cooling. Both sets of measurements fitted one curve. The samples were then annealed at 515 -- 545K for 300 hours and the

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ACC NR: AP6006766

measurements repeated. In agreement with other authors, hole conductivity was observed throughout. The temperature dependence of the mobility was obtained from the experimental data. At temperatures above 350K the mobility was proportional to $T^{-3/2}$, which indicates scattering of the carriers by thermal lattice vibrations. The experimental results indicate that even quantities which depend little on the carrier concentration change as a result of low-temperature annealing. This is due to ordering of the crystal lattice. This is also borne out by the fact that in ZnCdSb_2 , unlike in metal solutions, the conductivity decreases after annealing because of increased chemical bonding which leads to decreased carrier concentration. Orig. art. has: 3 figures.

SUB CODE: 20/ SUBM DATE: 10Jun65/ ORIG REF: 009/ OTH REF: 001

Card

2/2 mjs

THIRTY, (11)

MIKADZE, V.Sh., kapitan meditsinskoy sluzhby; BABAK, P.M., starshiy leytenant
meditsinskoy sluzhby

Treating epidermophytosis with the unit under camp conditions. Voen.-
med.zhur. no.7:83 J1 '57. (MIRA 11:1)
(DERMATOMYCOSIS)

LIST AND TWO ORDERS										PROCESSES AND PROPERTIES INDEX									
BABAK, S.F.										The rate of hydrogenation of isomeric hexenes. S. P. Lagerev and S. F. Babak. <i>J. Gen. Chem.</i> (U. S. S. R.) 7, 1661-3 (1937).—The times in min. for the hydrogenation over Pt black at 0° of 1 g. each of hexene, <i>tert</i>-butylethylene, 3-methyl-2-pentene and 2-methyl-2-pentene are 33, 70, 144 and 240, resp. H. M. L.									
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1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

2

Effect of acetone on the magnitude of the rotation of the plane of polarization of tartaric acid and the rate of its chemical reaction with ethyl alcohol. A. P. Troimenko and S. F. Babak. *J. Phys. Chem.* (U. S. S. R.) 13, 417, 20 (1939). Addn. of acetone to an aq. soln. of tartaric acid and EtOH simultaneously linearly decreases the optical rotation and the solv. of tartaric acid and the rate of its esterification with the alc. F. H. Rathmann

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

BASHKIN, S. F.

CA

2

Determination of the molecular weight as a method of physicochemical analysis. II. V. V. Lelavenko and S. F. Bashkin, *Zh. fiz. Khim.* (U.S.S.R.) 17, 635-64 (1947) (Russian); cf. C.A. 35, 61759. The apparent mol. wt. M of a few binary systems of noninteracting components one of which is subject to assocn. was detd. by cryoscopy in C_6H_6 soln. and was plotted against the compn. for the total molalities $m = 0$ (infinite diln.), 0.5, 1.0, and 1.5 moles/1000 g. C_6H_6 . In the system PhMe-MeOH, the $m = 0$ isoconcentrate is a straight line; the $m = 0.5$ curve is convex to the axis of compn., the $m = 1.0$ and 1.5 curves pass through a min. shifting to the PhMe side with rising m . In PhMe-EtOH, $m = 0$ is linear, the $m = 0.5$, 1.0, and 1.5 curves pass through a min. increasingly shifted to PhMe with rising m . In the PhMe-PhNO₂, the $m = 0$ isoconcentrate is again rectilinear, the other curves convex to the axis of compn., merging with the $m = 0$ line at 72 mol. % PhMe. The system PhMe-PhNH₂ shows the same behavior; extrapolation to $m = 0$ gives for PhNH₂ a value of M somewhat higher than the theoretical; this was reproduced in repeated detns. irrespective of addnl. purification. The linearity of M at infinite diln. indicates absence of assocn. The min., and its shift, is the result, on the one hand, of the decrease of M due to decreasing assocn. of the alc. with its increasing diln. by PhMe, and, on the other hand, to the increase of M with increasing PhMe content. The absence of a min. in the case of PhNO₂ and of PhNH₂ means not only lower assocn. but mainly a lesser tendency to disocn. on diln. with PhMe.

S. Thon

SUBJECT INDEX		PROCESS AND PROPERTY INDEX		IND AND ASM CODING	
BABAK, J.F.				2	
CA.					
Determination of the molecular weight as a method of physicochemical analysis. III. V. V. Udovenko and S. F. Babak (Mid-Asiatic State Univ., Tashkent). <i>J. Gen. Chem.</i> (U.S.S.R.) IV, 1563-9 (1947) (in Russian); cf. C.A. 42, 438d; 48, 817d. Apparent mol. wts. M (detd. by cryoscopy in C_2H_5 soln.) of a series of binary mixts. with $CHCl_3$ are tabulated and plotted as a function of the compn. of the mixt., for four concns.: infinite diln., 0.5, 1.0, and 1.5 moles/1000 g. C_2H_5. (Concentrate lines I-IV). (1) In EtOH-$CHCl_3$, I is rectilinear, II convex to the axis of abscissas, III and IV pass through a min.; the lines draw close with increasing $CHCl_3$ and merge with I at 93 mole % $CHCl_3$. The diagram indicates disson. of assocd. EtOH moles., which is borne out by the neg. thermal effect in mixing EtOH with a large amt. of $CHCl_3$. The chem. interaction indicated by the viscosity isotherm does not appear on the M diagram. (2) In PhNH$_2$-$CHCl_3$, lines I-IV have a shape similar to the corresponding lines of the preceding system; the lines merge with I at 68 mole % $CHCl_3$. The presence of the min. on III and IV, compared with its absence in the system aniline-toluene, indicates increased disson. of assocd. aniline moles. in the presence of $CHCl_3$ as compared with toluene. (3) In PhNO$_2$-$CHCl_3$, all 4 lines are convex and merge at 80 mole % $CHCl_3$; this indicates only disson. (4) Me$_2$CO-$CHCl_3$: I is rectilinear, III-IV are slightly concave; this indicates some chem. interaction.					
N. Thon					
ASS-ISA METALLURGICAL LITERATURE CLASSIFICATION					
SECONDARY INDEX					
SYNONYM INDEX					
RELATIONS INDEX					
SYNONYM ONE ONLY LIST					
RELATIONS ONE ONLY LIST					

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BABAK, S.F.
CA

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Viscosity and density of binary mixtures with nicotine.
I. S. K. (Isahak. *Zhur. Khimich. Akad. (J. Gen. Chem.)*
10, 1814 (1949).—For pure nicotine (I), at 25, 50, 80,
and 75°, the d_4 was detd. as 1.0088, 0.9880, 0.9800, and
0.9070, the viscosity η as 8.8042, 8.1555, 2.0370, and
1.2030. Complete tables and curves of the d_4 and of η
at 25, 50, and 75°, are given for the binary systems I-
AcOH, I-PhOH, and I-H₂O. In all 3 systems, mixing is
exothermal, and the curves of both the d_4 and η pass
through a max. at about 25 mole % I, indicating the exist-
ence of 1:3 compds. II. *Ibid.* 10, 1810-14 (1949).—
Analogous detns. of the d_4 and η , at 25, 50, and 75° for I-
butyric acid and I-oleic acid, and at 75° for I-stearic acid,
give maxima at 25 mole % I, indicating 1:3 compds.
N. Thon

BABAK, G. F.

"Viscosity and density of binary mixtures with nicotine. II.". Babak, G. F. (. 1610)

SO: Journal of General Chemistry, (Zhurnal Obshchei Khimii) 1949, Vol. 19, No. 9.

CA BABAK, S. F.

Systems with formic acid V. S. F. Babak, R. P. Abuspetova, and V. V. Udovenko (Samarland Med. Inst., Central Asian State Univ.). *Zhur. Obshch. Khim.* 20, 770-3 (1991); *J. Gen. Chem. U.S.S.R.* 20, 808-12 (1991); *J. Gen. Chem. U.S.S.R.* 20, 808-12 (1991); *J. Gen. Chem. U.S.S.R.* 20, 808-12 (1991). — Systems of formic acid with nicotine, piperidine, and anabasine were studied by detg. viscosity and d. as a function of concn. at temps. of 25, 50, and 75°. In each case the viscosity-concn. curves show sharp maxima at all temps. studied, indicating

coupled formation: with nicotine, $2HCOOH.C_{10}H_{14}N_2$; with piperidine, $HCOOH.C_{10}H_{14}N_2$; and with anabasine, $HCOOH.C_{10}H_{14}N_2$. Thus, in the system formic acid-nicotine at 25°, values for mole % nicotine and for viscosity are, resp.: 0.00, 1.5428; 10.07, 15.9257; 24.93, 69.1276; 30.36, 107.8897; 34.26, 119.1099; 39.92, 92.1480; 50.00, 37.6467; 71.44, 10.1264; 100.00, 3.8942. In the system formic acid-anabasine, the increase in viscosity is so great that at 25 and 50° an equimol. mixt. changes to a glassy mass but does not crystallize. In this system and in the system formic acid-nicotine, the d.-concn. curves show a slight max. near the formic acid side. Thus, in the system formic acid-anabasine at 25°, values for mole % anabasine and for d. are, resp.: 0.00, 1.1098; 19.53, 1.2049; 32.16, 1.1095; 52.36, 1.1139; 76.91, 1.0768; 100.00, 1.0427. In the system formic acid-piperidine, the d. at 25° decreases regularly from 1.1098 for formic acid to 0.8307 for piperidine. Arkl J. Miller

С.А. ВАСИЛЬЕВ, С.Ф.

Viscosity and density of binary systems with nicotine
III. S. F. Babak and V. V. Udovenko (Samarkand Med. Inst.). *Zhur. Obshchei Khim.* (J. Gen. Chem.) 20, 1508-71 (1950); cf. C.A. 44, 6230. The nicotine-nitrophenol system shows a complex, maximum η at 35°C. Viscosity of the system shows a max. at the above comp., the highest max. is at 35°C 8.0113 centipoises, lower max. at 50°C 4.3888, and at 75°C 2.0900. Density-composition curves are smooth curves of linear type going from 0.9980 at 35°C and 100 mol.% nicotine to 1.2515 at 15.63 mol.% nicotine, at 50°C from 0.9800 to 1.2851 at 0.0% nicotine, and at 75°C from 0.9670 to 1.2570 at 0.0% nicotine. The nicotine-PhNO₂ system shows a linear viscosity relation: at 25°C ranging from 1.7687 (0.0% nicotine) to 3.8042, at 50°C from 1.1925 to 2.0376, at 75°C from 0.8100 to 1.2020; values of ρ similarly range from 1.2003 to 1.0008, from 1.1718 to 0.9800, and from 1.1480 to 0.9670, resp. The system with *o*-MeC₆H₄NO₂ has linear viscosity relations: at 25°C from 2.0887 (0% nicotine) to 3.8042 (100%), at 50°C from 1.3477 to 2.0376, at 75°C from 0.9750 to 1.2020; ρ varies similarly: from 1.1578 to 1.0008, from 1.1315 to 0.9800, from 1.1000 to 0.9670, resp. The system with *p*-MeC₆H₄NO₂ has a linear viscosity relation: at 25°C from 2.8022 (41.68 mol.% nicotine) to 3.8042 (100%), at 50°C from 1.2008 (0%) to 2.0376 (100%), at 75°C from 0.8088 (0%) to 1.2020 (100%); ρ varies similarly: from 1.0703 to 1.0008, from 1.1223 to 0.9800, from 1.1015 to 0.9670, resp. G. M. K.

CA 6466h, S.F.

Viscosity of binary solutions with nicotine. IV. S. F. Babak and V. V. Udovenko (Samarland Med. Inst.). *Zhukh. Khim.* 20, 2121-3 (1959); *J. Gen. Chem. U.S.S.R.* 20, 2109-2201, 2203-5 (Engl. translation); cf. *C.A.* 46, 4872d. η and d were detd. for solns. of nicotine (I) with CCl_4 at temps. of 25, 35, and 50°, and with 1,2-dichloroethane, $PhCl$, and $PhBr$ at temps. of 25, 30, and 75°. There is no indication of any chem. interaction between the components in any case. The η -concn. curves in each of the 4 systems is a straight line at the highest temp. studied, but becomes increasingly convex towards the concn. axis with decreasing temp. In the system I- CCl_4 , e.g., values of mole % I, d , and η , resp., are: 25°: 0.00, 1.5792, 0.9240; 25.80, 1.5773, 1.5456; 50.30, 1.2293, 2.2747; 75.70, 1.1034, 3.0703; 100.00, 1.0000, 3.8042; at 30°: 0.00, 1.5201, 0.9667; 37.70, 1.2000, 1.2150; 75.70, 1.0773, 1.7311; 100.00, 0.9666,

2.0070. Similar values at 25° for the remaining systems are: I-1,2-dichloroethane: 0.00, 1.2846, 0.7640; 25.31, 1.1493, 1.2309; 50.00, 1.0835, 1.8280; 77.10, 1.0328, 2.8700; I- $PhCl$: 0.00, 1.0991, 0.7424; 25.87, 1.0378, 1.2057; 50.63, 1.0439, 1.8280; 72.10, 1.0337, 2.8972; I- $PhBr$: 0.00, 1.4030, 1.0010; 25.14, 1.3301, 1.5433; 48.72, 1.2074, 2.1000; 74.87, 1.0915, 2.9070. γ , 194d. 2124-6. η and d were detd. at 25, 35, and 50° for the system I-acetone, and at 25, 30, and 75° for the systems I-MeCOEt and nicotine-acetophenone (II). The first 2 systems have η -concn. curves similar to those mentioned in part IV except that even at the highest temp. investigated the curves are still convex towards the concn. axis. For the system I-II the curves are S-shaped, with the curvature decreasing with increasing temp. Values for mole % nicotine, d , and η , resp., at 25° are as follows: I-acetone: 0.00, 0.7818, 0.3332; 24.94, 0.8673, 0.6975; 50.05, 0.9408, 1.2797; 74.85, 0.9797, 2.2737; 100.00, 1.0000, 3.8042; I-MeCOEt: 0.00, 0.8004, 0.4004; 24.63, 0.8822, 0.7187; 48.78, 0.8885, 1.2450; 73.74, 0.9801, 2.9002; I-II: 0.00, 1.0242, 1.6379; 24.26, 1.0222, 2.1070; 49.34, 1.0102, 2.9460; 74.31, 1.0118, 3.6271.

Arvid J. Miller

BAMM, S. F.: Kondrashev, I. A.

"The Reaction of Nicotine With Mercuric Salts"

Sobshch. o Nauch. Rabotakh Chlenov Vses. Khim. Ob-va in Mendeleyeva,
No 3, 1953, 18-20

Describes the preparation and properties of new compounds of nicotine with HgBr_2 and HgCl_2 . Isolated and purified substances corresponding to the following formulas: $\text{C}_{10}\text{H}_{14}\text{N}_2 \cdot \text{HgBr}_2 \cdot 2\text{HBr}$, and $\text{C}_{10}\text{H}_{14}\text{N}_2 \cdot \text{HgCl}_2 \cdot \text{HCl} \cdot \text{H}_2\text{O}$. All compounds are stable in air, soluble in the respective halogen acid, and melt with decomposition. (RZhKhim, No 3, 1955)

SO: Sum No 845, 7 Mar 56

BABAK, S.F.; ZAMANOV, R.Kh.

Interaction of nicotine and cadmium chloride. Soob.o nauch.rab.
chl.VKH no.4:50-51 '53. (MIRA 10:10)
(Nycotine) (Cadmium chloride)

UDOVENKO, V.V.; BABAK, S.F.

Viscosity of certain binary systems with nicotine. Trudy SASU no. 40:
9-16 '53. (Viscosity) (Nicotine) (MLRA 9:12)

Referat. Zhur., Khim, 1954, No. 39299; cf. C.A. 45, 939d; 46, 7860dg.

The viscosity and d. of mixts. of nicotine with CHCl_3 , $\text{C}_2\text{H}_4\text{Br}_2$, tetrachloroethane, EtOH , iso-BuOH, AmOH , and cyclohexyl alc. were studied at 25, 50, and 75° and of nicotine and MeOH at 25 and 50°. The nature of the relation between the viscosity values and molar compn. indicates interaction between nicotine and CHCl_3 , ethylene bromide, tetrachloroethane, and Me, Et, and iso-Bu alcs. The interaction of these substances, with nicotine indicates their acidic nature in relation to nicotine mixt. with cyclohexyl alc. shows no reaction between the two. The acidic properties of the halogen derivs. increase with the no. of halogen atoms in the mol. and increases also upon the replacement of Cl by Br. In the case of alcs., an increase in the length of the hydrocarbon chain attenuates their interaction with nicotine.

BABAK, S. F.

Compounds of nicotine with cupric chloride and bromide.
S. F. Babak and G. B. Kagramanova. *J. Gen. Chem.*
U.S.S.R. 24, 1665-7(1954)(Engl. translation) — See *C.A.B.*
49, 11670.
B. M. R.

BABAK, S.F.

USSR/Chemistry

Card 1/1 : Pub. 151 - 40/42

Authors : Babak, S. F., and Kagramanova, G. B.

Title : Compounding of nicotine with cupric chloride and cupric bromide

Periodical : Zhur. ob. khim. 24/9, 1690-1693, Sep 1954

Abstract : The reaction of cupric chloride with nicotine in acetone and the reaction of cupric bromide with nicotine in ethyl alcohol were investigated. The derivation and properties of CuBr_2 and CuCl_2 - nicotine compounds are described. Two references: 1-USSR and 1-USA (1935 and 1953).

Institution : The Samarkand Medical Institute and The Soviet Trade Institute, Samarkand

Submitted : March 3, 1954

BABAK, S.F.

USSR/Chemistry - Physical chemistry

Card 1/1 Pub. 151 - 10/37

Authors : Babak, S. F., and Kondrashov, I. A.

Title : Zinc halide-nicotine compounds

Periodical : Zhur. ob. khim. 24/10, 1759-1761, Oct 1954

Abstract : The synthesis, composition and properties of zinc halide-nicotine compounds, are described. The reaction of nicotine with zinc halide was investigated in acetone and in aqueous solutions in the presence of acids. The reaction products obtained and their yields are listed. Zinc halide-nicotine compounds containing no acids are hardly soluble in water. Acid containing compounds are water-soluble but insoluble in sulfuric ether, acetone, methyl and ethyl alcohols. Three references: 2-USSR and 1-German (1936-1954). Table.

Institution : The I. P. Pavlov Medical Institute, Samarkand

Submitted : March 19, 1954

~~BABAK, S.F.~~
KONDRASHOV, I.A.; BABAK, S.F.

Mercury halide compounds with N-methylanabasine. Soob.o nauch.rab.
chl.VKH0 no.1:39-41 '55. (MIRA 10:10)
(Mercury halides) (Anabasine)

AUTHORS: Babak, S. F., Kagramanova, G. B. 79-28-5-29/69

TITLE: Interaction of the Halides of Trivalent Iron
with Nicotine (Vzaimodeystviye galogenidov trekhvalentnogo
zheleza s nikotinom)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, nr 5,
pp. 1257-1259 (USSR)

ABSTRACT: As result of the conversion investigations of nicotine
with the halides of zinc (reference 1), mercury
(reference 2) and copper (reference 3) in the corresponding
halogen hydracids, compounds were obtained which, according
to their compositions and properties, are salts of
nicotine and of free halogen acids. They have the general
formula $HMeHal_3$ and H_2MeHal_4 , where Me = metal, Hal. =
= chlorine, bromine or iodine. In the present work
for the first time investigation results of nicotine
with halides of trivalent iron are described and this in
the presence of the corresponding halogen hydrazides,
as well as in neutral water and in alkaline medium. The
synthesis and purification was carried out as usual

Card 1/3

Conversion of the Halides of Trivalent Iron With
Nicotine

79-28-5-29/69

(reference 4). The halides of iron, bromine and iodine were produced according to (references 4, 5). For the production of $\text{FeCl}_3 \cdot \text{C}_{10}\text{H}_{14}\text{N}_2 \cdot 2\text{HCl}$ 2.75 gr. iron chloride were mixed with 20 mg. of concentrated hydrochloric acid and then 1.62 gr. nicotine were added dropwise with violent stirring. From the clear solution after some days the crystalline product separated. For the production of $\text{FeBr}_3 \cdot \text{C}_{10}\text{H}_{14}\text{N}_2$ = N_2HBr and $\text{FeI}_3 \cdot \text{C}_{10}\text{H}_{14}\text{N}_2 \cdot \text{HJ}$ the authors used similar processes and methods, and obtained similar results. Thus the complex salts of nicotine with the halides of trivalent iron and the corresponding halogen hydrazide of the already mentioned composition were synthesized. The compounds of nicotine with the halogen acids of iron of the $\text{C}_{10}\text{H}_{14}\text{N}_2 \cdot \text{H}_2\text{MeHal}_5$ type dissociate completely to ions. There are 6 references, which are Soviet.

Card 2/3

Conversion of the Halides of Trivalent Iron with
Nicotine

79-28-5-29/69

ASSOCIATION: Samarkandskiy gosudarstvennyy meditsinskiy institut
i Samarkandskiy institut sovetskoy trgovli
(Samarkand State Institute for Medicine and Samarkand
Institute for Soviet Trade)

SUBMITTED: April 23, 1957

Card 3/3

AUTHORS: Kondrashov, I. A., Babak, S. F. SOV/79-28-6-60/63

TITLE: Compounds of Cadmium- and Mercury Halides With Nicotine (Soyedineniya galogenidov kadmiya i rtuti s nikotinom)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol. 28, Nr 6, pp. 1705 - 1707 (USSR)

ABSTRACT: Earlier (Refs 1-3) the authors showed that the halides of mercury, zinc and cadmium form the following types of compounds with nicotine, depending on the conditions of reactions: $\text{MeHal} \cdot \text{C}_{10}\text{H}_{14}\text{N}_2$, $\text{MeHal}_2 \cdot \text{C}_{10}\text{H}_{14}\text{N}_2$, $\text{HMeHal} \cdot \text{C}_{10}\text{H}_{14}\text{N}_2$ and $\text{H}_2\text{MeHal} \cdot \text{C}_{10}\text{H}_{14}\text{N}_2$. The last two types are nicotine salts according to their properties and correspond to the halogen acids of mercury, zinc and cadmium, of which some are also known in free state (Ref 4). The present paper is a further investigation of the complex compounds of the mercury-, zinc - and cadmium halides of the three types not yet described in papers. The compounds of mercury chloride and mercury bromide with nicotine ($\text{MeHal}_2 \cdot \text{C}_{10}\text{H}_{14}\text{N}_2$) form easily on mixing acetone solutions. The compounds with cadmium bromide and cadmium iodide of the same composition also form like the mercury com-

Card 1/3

Compounds of Cadmium-and Mercury Halides With Nicotine|SU/79-28-6-60/63

pounds, they can, however, also be obtained by dissolving the salts in pure hot nicotine. The compounds were synthesized with a small excess of nicotine and by heavy stirring of the reaction mixture, then they were washed several times, dried and analysed. The obtained complex compounds of nicotine with cadmium bromide and cadmium iodide and with the corresponding halogen hydrazides of the type MeHal_2 , $\text{C}_{10}\text{H}_{14}\text{N}_2 \cdot 2\text{HHal}$ thus represent salts of nicotine and of the cadmium halogen acids which completely dissociate in aqueous acids. It was found that the solubility of these compounds in water decreases with the increase of the atomic number of the element. There are 1 table and 5 references, 5 of which are Soviet.

ASSOCIATION: Samarkandskiy gosudarstvennyy meditsinskiy institut (Samarkand State Medical Institute)
SUBMITTED: June 26, 1957

Card 2/3

Compounds of Cadmium-and Mercury Halides With Nicotine^{30V}/79-28-6-60/63

1. Metals--Chemical reactions

Card 3/3

5(2)

AUTHORS: Babak, S. F., Kondrashev, I. A.

SOV/79-29-9-74/76

TITLE: Compounds of Zinc- and Cadmium Halides With N-Methyl Anabasine

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 2,
pp 3148 - 3153 (USSR)

ABSTRACT: The authors have previously shown (Ref 1) that N-methyl anabasine together with mercury halides forms compounds of the general composition $HgX_2 \cdot 2 \text{ alkaloid}$ and $H_2HgX_4 \cdot \text{alkaloid}$ (X = halogen). In the present paper the results of the reaction of zinc- and cadmium halides with N-methyl anabasine are discussed. Some of the properties of the complex compounds of the secondary zinc group with nicotine, anabasine, and N-methyl anabasine recently obtained by the authors are also compared to those described in other publications (Refs 2-8). This comparison is of general chemical interest, because nicotine and anabasine are isomers, and N-methyl anabasine is a derivative of anabasine. Under similar conditions, zinc- and cadmium halides, together with N-methyl anabasine, produce compounds of the same type as mercury halides: $MeX_2 \cdot 2C_{11}H_{16}N_2$ and $H_2MeX_4 \cdot C_{11}H_{16}N_2$. Complex compounds of N-methyl anabasine with

Card 1/2

Compounds of Zinc- and Cadmium Halides With N-Methyl
Anabasine

SOV/79-29-9-74/76

zinc- and cadmium halides and the corresponding halogen hydric acid were obtained in the following composition:
 $\text{ZnCl}_2 \cdot \text{C}_{11}\text{H}_{16}\text{N}_2 \cdot 2\text{HCl}$, $\text{ZnBr}_2 \cdot \text{C}_{11}\text{H}_{16}\text{N}_2 \cdot 2\text{HBr}$, $\text{ZnJ}_2 \cdot \text{C}_{11}\text{H}_{16}\text{N}_2 \cdot 2\text{HJ}$,
 $\text{CdCl}_2 \cdot \text{C}_{11}\text{H}_{16}\text{N}_2 \cdot 2\text{HCl}$, $\text{CdBr}_2 \cdot \text{C}_{11}\text{H}_{16}\text{N}_2 \cdot 2\text{HBr}$, $\text{CdJ}_2 \cdot \text{C}_{11}\text{H}_{16}\text{N}_2 \cdot 2\text{HJ}$.
Further, the following addition products were obtained:
 $\text{ZnCl}_2 \cdot 2\text{C}_{11}\text{H}_{16}\text{N}_2$, $\text{ZnBr}_2 \cdot 2\text{C}_{11}\text{H}_{16}\text{N}_2$, $\text{ZnJ}_2 \cdot 2\text{C}_{11}\text{H}_{16}\text{N}_2$, $\text{CdCl}_2 \cdot 2\text{C}_{11}\text{H}_{16}\text{N}_2$,
 $\text{CdBr}_2 \cdot 2\text{C}_{11}\text{H}_{16}\text{N}_2$, $\text{CdJ}_2 \cdot 2\text{C}_{11}\text{H}_{16}\text{N}_2$. The thermal stability of anabasine, N-methyl anabasine, nicotine, and their complex compounds as well as their ability to form complex compounds depend on the structure of the rings formed by these alkaloids and on the nature of the atoms and radicals linked to oxygen. Nicotine, anabasine, and N-methyl anabasine form compounds of one and the same type with the halides of the secondary zinc group. There are 2 tables and 10 Soviet references.

ASSOCIATION: Samarkandskiy gosudarstvennyy meditsinskiy institut (Samarkand State Medical Institute)

SUBMITTED: July 30, 1958
Card 2/2

BABAK, S.F.

New method of sorting, doubling and winding into rolls of locknit
warp fabrics. Leh, prom. no. 348-50 Je Ag '62. (MIRA 16:2)

1. Kiyevskaya trikotazhnaya fabrika im. Rozy Lyuksemburg.
(Kiev—Textile machinery) (Knit goods industry)

BABAK, S.F.; KONDRASHOV, I.A.

Compounds of zinc subgroup halides with piperidine. Zhur.
neorg. khim. 10 no.7:1642-1646 J1 '65. (MIRA 18:8)

1. Kafedra obshchey khimii Samarkandskogo gosudarstvennogo
meditsinskogo instituta imeni I.P. Pavlova.

BABAK, S.F.

Outline for the preparation of circular knit fabrics for printing.

Lab. prom. no. 2:70-71 Apr-Jn '65.

(MIRA 18:10)

FLEKOVA, I.N., kand. tekhn. nauk, dotsent; BABAK, T.V., inzh.

Investigating the abrasion resistance of knit fabrics at various deformation degree. Nauch. trudy MTILP no.30:179-187 '64. (MIRA 18:6)

1. Kafedra tekhnologii shveytnogo proizvodstva Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.

ACCESSION NR: AP4025934

S/0056/64/046/003/1025/1032

AUTHORS: Babak, V. G.; Ignatovich, V. K.; Fradkin, Ye. S.

TITLE: Asymptotic value of the interaction cross section of two Fermi particles in the e^4 approximation

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 46, no. 3, 1964, 1025-1032

TOPIC TAGS: Fermi particle, high energy Fermi particle, interaction cross section, asymptotic cross section doubly logarithmic accuracy, e^4 approximation, electron electron scattering, electron positron scattering, electron muon scattering, muon pair production, electron pair annihilation, colliding beam experiment, Regge pole trajectory, perturbation theory series

ABSTRACT: The purpose of the study is to establish correct expressions for the following cross sections: electron-electron scattering,

Card 1/3

ACCESSION NR: AP4025934

electron-positron scattering, electron-muon scattering, and muon pair production following annihilation of an electron pair. Asymptotic values valid for all angles are obtained (in the e^4 -approximation) with doubly-logarithmic accuracy for the cross section of interaction of two high energy Fermi particles. These asymptotic values are of interest in view of the planned colliding-beam experiments proposed to check on the laws of electrodynamics at small distances, and also in view of attempts at obtaining the Regge-pole trajectory with the aid of perturbation theory series. It is shown that near 180° the electron positron cross section decreases, in agreement with the work of Milekhin and Fradkin (ZhETF v. 45, 1926, 1963), and in sharp contrast with the results of A. A. Abrikosov (ZhETF v. 30, 545, 1956). Misprints contained in papers of other investigators are pointed out. Orig. art. has: 1 figure and 44 formulas.

ASSOCIATION: Fizicheskii institut im. P. N. Lebedeva AN SSSR

Card 2/3

ACCESSION NR: AP4025934

(Physics Institute, AN SSSR)

SUBMITTED: 17Aug63

DATE ACQ: 16Apr64

ENCL: 00

SUB CODE: PH

NO REF SOV: 004

OTHER: 001

Card 3/3

POPOVA, I.S.; LABARINA, V.G.; KALTYKOVA, G.Ya.; SERGEEVA, I.N.;
SILOVA, G.N.; NESTEROVA, G.A.

Use of enzymatic preparations (protease and amylase), isolated
from the thermophilic strain of *Bac. mesentericus*. Prikl. biokhim.
i mikrobiol. 1 no.3:263-268 My-Je '65. (MIRA 18:7)

1. Institut mikrobiologii AN SSSR.

BABAK, .V.I.

History of the development of the relief of mountainous Crimea.
Bul.MOIP,Otd.geol. 31 no.15:124-125 S-O '56. (MLRA 10:3)
(Crimea--Physical geography)

BABAK, V. I., Cand Geol-Min Sci -- (diss) "Neotectonics of Crimea." Mos, 1957. 20 pp (Min of Higher Education USSR, Mos Geol Prospecting Inst im S. Ordzhonikidze), 110 copies (KL, 52-57, 104)

- 14 -

BABAK, V.I.

Outline of recent tectonic movements in the Crimea. *Biul.MOIP.Otd..*
geol. 34 no.4:51-65 J1-Af '59. (MIRA 13:8)
(Crimean Mountains—Geology, Structural)

NIKOLAYEV, N.I.; BABAK, V.I.; KATS, Ya.O.; KIZEL'VATER, D.S.; NIKITINA, M.I.; PAVLINOV, V.N.; PAISOVA, E.K.; PEREP'ELKINA, S.M.; RYZHOVA, A.A.; SAPOZHNIKOV, D.G.

"Principles of structural geology and geological mapping" by A.E.Mikhailov. Reviewed by N.I.Nikolaev and others. Izv.vys. ucheb.zav.; geol.i razv. 2 no.11:125-127 M '59.
(MIRA 13:6)

1. Moskovskiy geologorazvedochnyy institut im. S.Ordzhonikidze.
(Geology, Sturctural--Maps) (Mikhailov, A.E.)

BABAK, V.I.

Stratigraphy of continental Pliocene sediments in the Crimea. Trudy
MGRI 37:137-151 '61. (MIRA 15:1)
(Crimea--Geology, Stratigraphic)

BABAK, V.I.

Quaternary faulting in the central part of the Irtysh-Balkhash watershed. Izv. vys. ucheb. zav.; geol. i razv. 7 no.2:138-141 F'64. (MIRA 17:2)

1. Moskovskiy geologorazvedochnyy institut im. S. Ordzhonikidze.

BABAK, V.I.

Origin of Quaternary planation surfaces in eastern Kazakhstan.

Izv.vys.ucheb.zav.; geol.i razv. 7 no.8:35-44 Ag '65.
(MIRA 18.11)

1. Moskovskiy geologorazvedochnyy institut im. S.Ordzhonikidze.

COMMON ELEMENTS		1ST AND 2ND ORDER		1ST AND 2ND ORDER	
CA		V.K.		18	
PROCESSES AND PROPERTIES INDEX Concentration of pyrochlore. A. P. Ismailov and V. K. Balakh. U.S.S.R. 66,801, Aug. 31, 1946. Pyrochlore is floated, with oleic acid as collector, at a temp. not below 25° in a medium of pH 8.4-9.0. From the concentrate Cr_2O_3 is extd. M. Huseh					
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION					
1ST ORDER		2ND ORDER		3RD ORDER	
1ST ORDER		2ND ORDER		3RD ORDER	

"APPROVED FOR RELEASE: 06/06/2000

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APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000102810005-4"

BABAK, V. K.

Iron Ore Deposits (~~conts~~) of the Tagil-Kushva Industrial Area, ⁶⁹⁸ Sverdlovsk, 1957, 188pp, (papers presented during '53 visiting session, Academic Council, Mining* determine any possible regularity in the occurrence of iron ore. The author stresses the importance of "small" deposits as those are believed to have a large extent in depth. In conclusion he makes recommendations for further exploration work. The names of several geologists are mentioned. There is one Soviet reference.

Babak, V. K., Senior Scientific Worker of the "Uralsmekhanobr" Institute.
Concentration of Magnetic and Sulphide Ores for the Purpose of Complex Exploitation

123

The varying composition of contact metasomatic iron ores of the Ural region requires different concentration methods. Modern concentration methods assure the recovery of a number of elements of economic importance. The problems of dry and wet magnetic separation, flotation of the concentrated ore and of tailings are discussed. There are flow sheets and graphs showing the relative concentration of ore depending on the method used. There are no references.

*and Geological Inst, Ural Branch, Acad. Sci. USSR, and Affiliated bodies.

Card 6/9

BABAK, V. K.

Shaking table for the skin flotation of coarse-grained mineral particles. TSvet. met. 33 no.7:12-15 J1 '60. (MIRA 13:7)

1. Uralmekhanobr.

(Granular materials) (Flotation--Equipment and supplies)

KAROVSKIY, I.A.; KUBEN, V.A.; KOLACHNIK, A. P. A.

Effect of mineral additions on the oxidation process of sulfide
ions in aqueous solutions of sodium sulfide. Obog. rud 6 no.5:
23-27 '61. (MIRA 15:1)

1. Ural'skiy nauchno-issledovatel'skiy institut mekhanicheskoy
obrabotki poleznykh iskopayemykh.
(Flotation) (Sulfides)

BABAK, V.K.; SOLODNIKOV, V.A.

Effectiveness of flotation recovery of copper and cobalt from
magnetites of the Vysokogorskiy deposit. Gor. zhur. no.1:72-74
Ja '64. (MIRA 17:3)

1. Ural'skiy nauchno-issledovatel'skiy i proyektnyy institut obo-
gashcheniya i mekhanicheskoy obrabotki poleznykh iskopayemykh,
Sverdlovsk.

RABAK, V. S., ZALOZH, F. K., and KHRUSTALEVA, F. Ye.

Our methods of caring for vineyards. Vin. SSSR No 4, 1952.

CHERNYSH, V.; BABAKHADZHAYEV, A. (st.Kagan Tashkentskoy zheleznoy dorogi);
FEDOTOV, G. (Penza); KLOKOV, A. (Yaroslavl'); SKVORTSOV, A. (Yaroslavl');
CHISTYAKOV, M. (Tula); SEROV, B. (poselok Nizhneangarsk,
Buryatskaya ASSR); SANAKOYEV, I. (Magdanskaya oblast');
AGAFONOV, G., instruktor profilaktiki (Yegor'yevsk, Moskovskaya obl.);
MALANOV, V. (Chelyabinsk)

Readers' letters. Pozh.delo 7 no.9:31 S '61. (MIRA 14:11)
(Fire prevention)

BABAKHANOV, A.B.

Solving problems in architecture in planning and constructing hydraulic engineering structures in Uzbekistan. Izv.AN Uz.SSR. Ser.tekh. nauk. no.2:46-53 '60. (MIRA 13:10)

1. Tashkentskiy nauchno-issledovatel'skiy institut po stroitel'stvu Akademii stroitel'stva i arkhitektury SSSR.
(Uzbekistan--Hydraulic structures)

BABAKHANY, A. C.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr 1954)

<u>Name</u>	<u>Title of Work</u>	<u>Nominated by</u>
Isakov, I. S.	"Marine Atlas" (Vol 11)	Geographical Society
Shuleykin, V. V.		of the USSR, Academy
Denin, L. A.		of Sciences USSR
Vorobyev, V. I.		
Seregin, M. P.		
Yegoriyeva, A. V.		
Smirnova, V. G.		
Kudryatsev, M. K.		
Babakhanov, A. C.		
Rudovits, L. F.		
Volkov, F. G.		
Salishchev, K. A.		
Orlov, B. P.		
Kalesnik, S. V.		
Shvede, Ye. Ye.		
Snezhinskiy, V. A.		
Fogosyan, Kh. P.		
Drozdov, O. A.		

SO: W-30604, 7 July 1954

BABAKHANOV, B.V.

42637. Vliyaniye Razlichnykh Dozirovok Elektricheskogo Polya Ul'travysokey Chastoty (UVCH) Na Izolirovannoye Serdtse Krolika.--B Ogl: Babakhanov V.V. Trudy Uzbek. Gos. Nauch--Issled. In-ta Fizioterapii Kurortologii In. Semashko, sb, 10, 1948, S. 95-112.

BABAKHANOV, B.V.

Therapeutic factors of the health resorts of Kirghizistan.
Sov. zdrav. Kir. no.4/5:37-43 J1-0'63 (MIRA 17:1)

1. Direktor Kirgizskogo nauchno-issledovatel'skogo instituta
kurortologii i fizioterapii.

BABAKHANOVA, L.V.; BASHKINA, L.L.; MOROSOVA, N.N.

Center of the Kirghizistan Institute of Health Resorts and
Physiology, dedicated to the centenary of the voluntary
incorporation of Kirghizistan into the Soviet Union. Vop. kur.,
Gosfotoizdat, M., 1971, no. 1, 10-11, 100-101.

(MIRA 17:8)

BABAKHANOV, O. I., Cand V. t Sci (diss) -- "A study of indexes of the degree of freshness of meat and certain food byproducts of buffalo slaughtering". Kirovabad, 1959. 18 pp (Committee on Higher and Inter Spec Educ of the Council of Ministers Azerb SSR, Azerb Agric Inst), 150 copies (KL, No 14, 1960, 135)

BABAKHANOV, O.I.

Determining freshness of buffalo meat and other by-products.
Dokl. AN Azerb. SSR 5 no.5:419-422 '59. (MIRA 12:8)
(Meat---Judging) (Buffaloes)

AKHMEDOV, A.M.; BABAKHANOV, O.I.

Study of the ripening of meat and various by-products of slaughtered buffalo. Vop. pit. 18 no. 6:61-65 N-D '59. (MIRA 14:2)

1. Iz Azerbaydzhanskogo sel'skokhozyaystvennogo instituta, Kirovabad.

(MEAT)

AKHMEDOV, A.; BABAKHANOV, O.

Veterinary and sanitary inspection of meat and of the by-products
of buffalo slaughtering. Mias.ind.SSSR 31 no.3:53-55 '60.

(MIRA 13:9)

1. Azerbaydzhanskiy sel'skokhozyaystvennyy institut.
(Meat inspection)

BABARHANOVI, F. I.

BABARHANOVI, F. I.: "Increasing the precision of the basic parameters of foundations for construction, and for the calculation for road coverings under the conditions of the irrigated regions of Uzbekistan." Min Higher Education USSR. Moscow Automobile and Road Institute V. M. Molotov. Moscow, 1956. (Dissertation for the Degree of Candidate in Technical Sciences).

Source: Knizhnaya letopis' No. 28 1956 Moscow

RAYAXIYANOV, P.B., kama.tekhn.nauk

Specifying basic parameters of roadbeds for designing and
constructing pavements in irrigated districts of Uzbekistan.

Trudy MADI no.22:161-169 '59.

(MIRA 12:4)

(Uzbekistan--Road construction)

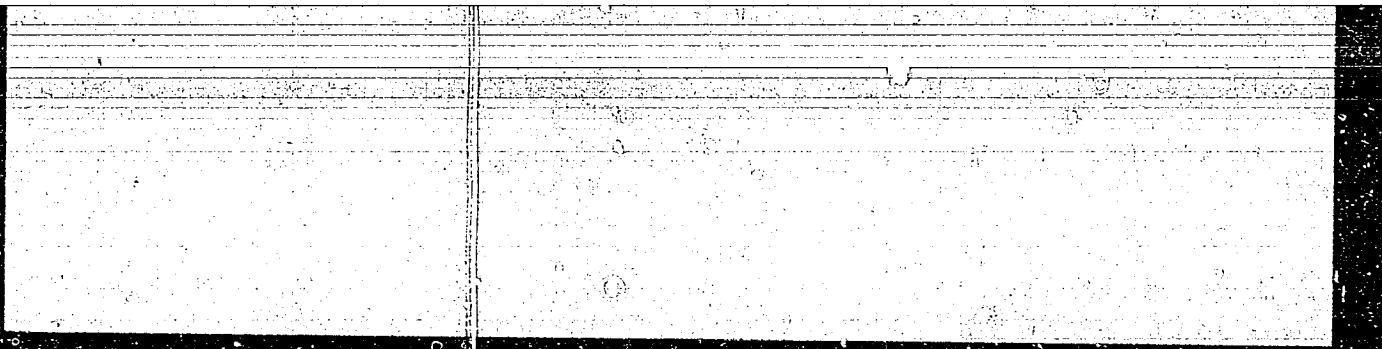
BABAKHANOV, Pulat Babakhanovich, kand.tekhn.nauk; MURAKAYEVA, A.K., red.;
MEL'NIKOV, A., tekhnred.

[Earth roadbed of highways in Uzbekistan] Zemlianoe polotno
avtomobil'nykh dorog Uzbekistana. Tashkent, Gos.izd-vo Uzbekskoi
SSR, 1958. 82 p. (MIRA 14:3)
(Uzbekistan--Road construction)

BABAKHANOV, R. A. Cand Chem Sci -- (diss) "Alkylation of halogen-derivatives of cyclic hydrocarbons." Baku, 1957. 16 pp (Acad Sci Azerbaydzhan SSR. Inst of Petroleum), 100 copies (KL, 5-58, 100)

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CIA-RDP86-00513R000102810005-4"

DAKHAHANOV, R.A.
MAMEDALIYEV, Yu.G.; DABAKHANOV, R.A.

Alkylation of bromobenzene by propylene in the presence of
synthetic aluminosilicates. Izv. AN Azerb. SSR no.8:41-47 Ag
'57. (MLRA 10:9)
(Benzene) (Propene) (Alkylation) (Aluminosilicates)

MAMEDALIYEV, Yu.G.: BABAKHANOV, R.A.

Catalytic synthesis of the alkyl derivatives of bromobenzene. Izv. AN
Azərbaycan SSR Ser. Fiz.-tekh. i khim. nauk. no.1:65-72 '58.

(MIRA 12:3)

(Benzene) (Catalysis)

MAMEDALIYEV, Yu.G.; BABAKHANOV, R.A.; MUSAYEVA, A.R.

Alkylation of benzene with allyl bromide in the presence of
sulfuric acid. Azerb.khim.zhur. no.2:3-8 '61. (MIRA 14:8)
(Benzene) (Propene)

S/081/62/000/023/032/120
B168/B186

AUTHORS: Mamedaliyev, Yu. G., Babakhanov, R. A., Magerramov, M. N.
TITLE: Haloalkylation of toluene by means of haloalkenes in the presence of sulfuric acid
PERIODICAL: Referativnyy zhurnal. Khimiya, no. 23, 1962, 246, abstract 23Zh103 (Azerb. khim. zh., no. 6, 1961, 37-42 [summary in Azerb.])

TEXT: Continuing their work (RZhKhim, 1961, 24N378) the authors studied haloalkylation of toluene (I) by vinyl chloride (II), by allyl bromide (III), by allyl chloride (IV) and by metallyl chloride (V) in the presence of H_2SO_4 . It was found that III-V reacting with I give the corresponding aromatic alkyl compounds with a halogen atom in the side chain, and that II does not react with I under the conditions in question. It was found by IR spectroscopy that addition of haloalkenes to I takes place at the double bond in accordance with Markownikoff's rule. It was shown that the product consists basically of a para-isomer with an admixture of a meta-isomer. The effects of temperature, ratio of components, quantity and concentration
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of H_2SO_4 and duration of reaction on the formation of reaction products were studied. It was found that if the reaction temperature is raised to a specific limit the yield of monoalkylhalogen derivative of I increases and reaches its maximum. If the temperature is raised beyond the optimum the reaction is complicated by side reactions of the ensuing substitution and by increased sulfonation of I. It was found that a rise in the quantity of I in the reaction mixture increases the yield of monoalkylhalogen derivative from I and reduces the content of products of the ensuing substitution. A rise in the quantity of H_2SO_4 increases the yield of monoalkylhalogen derivative from I but reduces the total yield of the organic layer owing to intensification of the sulfonation reaction of the initial I. If the reaction time is increased from 0.5 to 2 hrs the yield of 1-bromine-2-tolylpropane (VI) varies within the range 21.8-24.5%. Under optimum reaction conditions (these were found to be: temperature $40^{\circ}C$, reaction time 1 hr, mixing time 1 hr, 94% H_2SO_4 , ratio I:II-V: H_2SO_4 = 1:0.25:0.5), the yields of 1-chloro-2-tolylpropane (VII), β -chloro-tert-butyltoluene (VIII) and VI were 5.3, 69.9 and 41.8% (of the theoretical

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quantity) respectively. The relatively low yield of VII compared with that of VI is due to the high electronegativity of Cl and therefore also to the induction effect and the conjugation effect, which reduce the reactivity of the double bond. The deactivating effect of the Cl atom in V on the double bond is still more discernible in the case of II. The effect of the Cl atom in V on the double bond is partly offset by the effect of the CH_3 group, which activates the double bond. I (b.pt. 110.6-110.8°C, n_D^{20} 1.4968, d_4^{20} 0.8658) was made to react with II-V, as described earlier (see reference above). H_2SO_4 of varying concentration was used as catalyst. II, IV (b. pt. 44-45°C, n_D^{20} 1.4150, d_4^{20} 0.9375) and V (b. pt. 70-71°C, n_D^{20} 1.4290, d_4^{20} 0.9267) were obtained by the method described earlier (see Yu. G. Mamedaliyev, M. M. Guseynov, Paper read at the II Mezhdunar. kongr. po katalizu (2nd International Congress on Catalysis), paper no. 122, section 3, 1960). III, b. pt. 70-71°C, n_D^{20} 1.4648, d_4^{20} 1.3976, was obtained from $\text{CH}_2=\text{CHCH}_2\text{OH}$. For the

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following substances the b. pt. in °C/3 mm, n_D^{20} , d_4^{20} and molecular weight are given: VI, 80-85, 1.5450, 1.2645, 211; VII, 70-75, 1.5225, 1.0364, 170.4; VIII, 80-85, 1.5230, 1.0238, 178.8. [Abstracter's note: Complete translation.]

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MAMEDALIYEV, Yu.G.; BABAKHANOV, R.A.

Synthesis of para-dichloroisopropenylbenzene. Dokl. AN Azerb.
SSR 17 no.6:467-470 '61. (MIRA 14:8)

1. Institut neftekhimicheskikh protsessov AN AzerSSR.
(Styrene)

S/249/62/018/002/001/001

1018/1218

Authors: Mamedaliyev Yu. G., (Deceased), Babakhanov, R. A., and Magerramov, M. N.

Title: ALKYLATION OF AROMATIC HYDROCARBONS BY ALLYL BROMIDE IN THE PRESENCE OF SULFURIC ACID

Periodical: *Akademiya nauk Azerbaydzahnskoj SSR. Doklady* 18(2) 1962, 25-30

Text: A previous report showed that allyl bromide in the presence of sulfuric acid easily reacts with benzene yielding the corresponding substitution product. In the present communication, comparative studies were made on the alkylation of benzene, toluene, ethyl benzene and cumene by allyl bromide in the presence of sulfuric acid. The importance of aromatic hydrocarbons containing in their side chain halogen atoms in β -position is stressed for the preparation of thermostable plastic materials etc. The mechanism of interaction between aromatic hydrocarbons and alkene halides is discussed. The dependence of product composition on the catalyst used is described. The use of sulfuric acid as a catalyst permits the reaction along the double bond with the preservation of the halogen atom in the final product. The results of several typical experiments carried out in the presence of 94% H_2SO_4 and a molar ratio of aromatic hydrocarbons to allyl bromide of 4:1 are presented. The duration of the reaction: 2 hours, t (optimal) 50 °C. A number of alkyl aromatic compounds

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with halogen atom in the side chain were synthesized. The structure of compounds synthesized was determined by means of infrared spectra. It was shown that para-isomers prevailed. There are 4 figures and 1 table

Association. Institut neftekhimicheskikh protsessov (Institute of Petrochemical Processes)

Submitted: November 3, 1961

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MAMEDALIYEV, Yu.G. [deceased]; BABAKHANOV, R.A.; MAGERRAMOV, M.N.;
SHAKHGEL'DIYEV, M.A. ~~SHAKHGEL'DIYEV, M.A.~~

Alkylation of aromatic compounds with allyl bromide. Dokl.
AN Azerb. SSR 18 no.7:23-26 '62. (MIRA 17:2)

1. Institut neftekhimicheskikh protsessov AN AzSSR.

MAMEDALIYEV, Yu.C. [deceased]; SHAKHGEL'DIYEV, M.A.; BABAKHANOV, R.A.

Reaction of cresols with allyl bromide. Dokl. AN Azerb. SSR
18 no.11:15-16 '62. (MIRA 17:2)

1. Institut neftekhimicheskikh protsessov AN AzSSR.

MAMEDALIYEV, Yu.G. [deceased]; BABAKHANOV, R.A.; MAGERAMOV, M.N.

Introduction of an iodoisopropyl group into aromatic hydrocarbons
in the presence of sulfuric acid. Dokl. AN SSSR 152 no.3:624-626
S '63. (MIRA 16:12)

1. Chlen-korrespondent AN SSSR (for Mamedaliyev).

MAMEDALIYEV, Yu.G. [deceased]; BABAKHANOV, R.A.; MAGERRAMOV, M.N.;
SALIMOV, M.A.; MUSAYEVA, A.R.

Interaction between benzene and alkene halides. Azerb. khim
zhur. no.5:3-12 '63 (MIRA 17:8)

MAMEDALIYEV, Yu.G. [deceased]; BABAKHANOV, R.A.; MAGERRAMOV, M.N.

Synthesis of haloisopropyl- and halo-tert-butyl derivatives of
tert-butylbenzene, cyclohexylbenzene, and tetralin. Azerb.
khim.zhur. no.6:45-50 '63. (MIRA 17:3)

BABAKHANOV, R.A.; GAYDAROVA, E.E.

Liquid-phase alkylation of chloro and bromobenzene with propylene
in the presence of sulfuric acid. Azerb. khim.zhur. no.4:67-72
'64. (MIRA 18:3)

Y. F. LAY W., I. P.; G. A. K. I. D. V., I. P.; G. A. K. I. D. V., I. P.; G. A. K. I. D. V., I. P.

Halocyclization of nitrile oxides with azobenzene. Izv. AN
Azorb. S. R. A. no. 3: 30-33 1965. (USSR, 1965)

1. Institut neftekhimicheskikh protsessov AN Azerb. R.

BABAKHANOV, R.A.; MISHIYEV, D.Ye.; GAYDAROVA, E.E.; SAMEDOVA, T.

Alkylation of cresols with olefins. Azerb. khim. zhur. no.1:42-44 '65.
(MIRA 18:7)

1. Institut neftekhimicheskikh protsensov AN AzerSSR.

BABAKHANOV, R.A.; MAGENRAMOV, M.N.; SHAKHIGEL'DIYEV, M.A.

Alkylation of toluene by allyl iodide. Azerb. khim. zhur. no.3:
53-56 '65. (MIRA 19:1)

1. Institut neftekhimicheskikh protsessov AN AzerSSR i Azer-
baydzanskiy gosudarstvennyy universitet im. S.M. Kirova.

BABAKHANOV, R.A., MAGERRAMOV, M.N., SHAKHGEL'DIYEV, M.A.

Alkylation of benzene with allyl iodide. Azerb. khim. zhur.
no. 2:55-58 '65. (MIRA 18:12)

1. Institut neftekhimicheskikh protsessov AN AzerSSR. Submitted
Oct. 20, 1964.